

**PROPERTIES OF HYBRID BOARD FROM RICE HUSK AND
RUBBERWOOD FIBER**

By

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ABSTRACT

PROPERTIES OF HYBRID BOARD FROM RICE HUSK AND RUBBERWOOD FIBER

This study evaluated the physical and mechanical properties of a hybrid board consisting of rice husk and rubberwood fiber by varying the ratios of rice husk and rubberwood fiber. Currently rubberwood supply is decreasing and limited in resources thus another agriculture waste species were promoted as very promising raw material for wood composite product. The objective of this study are to determine the physical and mechanical properties and evaluate the suitable ratios for hybrid board. The hybrid boards were manufactured from three different percentage of ratios of rice husk and rubberwood fiber (50:50, 25:75 and 75:25) and the target board density was 650 kg/m³ with applied 12% of Phenol Formaldehyde (PF) as a binder. The hybrid board quality were evaluated by determine of bending properties including modulus of rupture (MOR), modulus of elasticity (MOE), internal bonding (IB) strength. Thickness swelling (TS) and water absorption (WA) based on JIS A5905:2003. The results show that the bending strength and internal bonding were decreasing with the increasing of percent of rice husk in the board. The result for thickness swelling also show the same result. But the water absorption was increasing with the increasing of percent of rice husk in the board.

TABLE OF CONTENTS

CANDIDATE'S DECLARATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF APPENDICES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	x
ABSTRACT	xi
ABSTRAK	xii

CHAPTER

1	INTRODUCTION	1
1.1	Background of Study	1
1.2	Problem Statements	2
1.3	Justification	3
1.4	Objectives of Study	3
1.5	Scope of Study	4
2	LITERATURE RIVIEW	5
2.1	Fiberboard	5
2.1.1	Medium Density Fiberboard Process	5
2.1.2	Raw material of medium density fiberboard	6
2.1.3	Uses of medium density fiberboard	7
2.1.4	Properties of medium density fiberboard	7
2.2	Rice husk	8
2.3	Rubberwood	10
2.4	Resin	13
2.5	Past study	14
2.5.1	Particleboard from rice husk	14
2.5.2	Fiberboard	14

3	MATERIALS AND METHODS	16
3.1	Materials Preparation	16
3.2	Hybrid board Preparation	16
3.2.1	Drying	17
3.2.2	Glue mixing and blending	18
3.2.3	Mat forming	18
3.2.4	Pre-press	19
3.2.5	Hot press	19
3.2.6	Cooling and conditioning	19
3.2.7	Trimming	20
3.3	Panel Testing	20
3.3.1	Cutting samples	21
3.4	Testing Method	21
3.4.1	Physical Testing	22
3.4.2	Mechanical Testing	23
3.5	Experimental Design	24
4	RESULTS AND DISCUSSIONS	25
4.1	ANOVA Analysis	25
4.2	Effect of rice husk ratio on the mechanical properties	26
4.2.1	Modulus of Rupture (MOR)	26
4.2.2	Modulus of Elasticity (MOE)	27
4.2.3	Internal bonding	28
4.2.4	Thickness Swelling	29
4.2.5	Water Absorption	30
5	CONCLUSIONS AND RECOMMENDATIONS	31
5.1	Conclusions	31
5.2	Recommendations	31